

CLAIMS

The invention claimed is:

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1. A context-based data collection system comprising:

a clock to provide a time context;

a first data input device to capture a first data element;

a second data input device to capture a second data element;

10 a processor to associate each of the first and second captured data elements with a respective time context; and

a data storage element to store the first and second data elements in association with the time context wherein the first and second data elements are stored in the data storage element in association with each other based on the
15 time context.

2. The system of claim 1 wherein the data storage element is a relational database and the first and second data elements are stored in the database in relation to each other.

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3. The system of claim 1 wherein the data storage element is a relational database, the system further comprising an input device to generate text data wherein data storage element stores the first and second data elements are stored in the data storage element in relation to each other based on the text data.

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4. The system of claim 1 wherein the clock provides a date data context and wherein data storage element stores the first and second data

elements are stored in the data storage element in association with each other based on the date context.

5 5. The system of claim 1, further comprising a position
determination unit to provide a position context wherein data storage element
stores the first and second data elements in association with each other based on
the position context.

10 6. The system of claim 5 wherein the position determination unit
comprises a global positioning system (GPS) receiver.

15 7. The system of claim 6 wherein the GPS receiver provides time
information and the clock utilizes the time information to establish a time of day
used to provide the time context.

 8. The system of claim 1 wherein the first data input device is an
image input device and the first data element is an image.

20 9. The system of claim 8 wherein the second data input device is
an image input device and the second data element is an image.

 10. The system of claim 8 wherein the second data input device is
an audio input device and the second data element is audio data.

25 11. The system of claim 8 wherein the image input device is a
photographic camera.

 12. The system of claim 8 wherein the image input device is a
video camera.

13. The system of claim 8 wherein the image input device is a scanner and the first data element is a scanned image.

5 14. The system of claim 1 wherein the first data input device is an audio input device and the first data element is audio data.

15. The system of claim 14 wherein the second data input device is an audio input device and the second data element is audio data.

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16. The system of claim 14 wherein the second data input device is an image input device and the second data element is an image.

17. The system of claim 1, further comprising a trigger element to
15 initiate the capture of the first and second data elements.

18. The system of claim 17 wherein the trigger element initiates the capture upon receipt of a trigger based on an event external to the system.

20 19. The system of claim 17 wherein the trigger element is periodically activated.

20. The system of claim 1 wherein at least the first data input device is configured to be worn by an individual user.

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21. The system of claim 1 wherein at least the first data input device is a portable image input device and the first data element is an image.

22. The system of claim 21, further comprising a horizon adjustment system to detect a horizon within the image and to alter the captured first data element to position the horizon at a desired position within the altered image.

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23. The system of claim 1 for use with a second system with each system having a clock, first and second data input devices, a processor and a data storage element, the system further comprising a communication controller to control communication between the systems, the communication controller
10 permitting the access of the data storage element of the other system to thereby exchange data storage elements between the systems.

24. The system of claim 21 wherein the systems exchange data storage elements between the systems based on the time context associated with
15 the stored data elements.

25. A relational database system comprising:
a storage device to store data elements;
an input interface to receive a plurality of multimedia data elements,
20 each of the plurality of multimedia data elements having a time context, a date context and a place context associated therewith, the input interface storing the plurality multimedia data elements in the storage device in association with the time, date and place contexts;
a search interface configured to receive a search element and to
25 locate all multimedia data elements within the storage device that are determined to be a match with the search element; and
an output interface to generate an output list of all multimedia data elements that match the search element.

26. The database system of claim 25 wherein the search element is the time context and the search interface locates all multimedia data elements that match the time context indicated by the search element.

5 27. The database system of claim 25 wherein the search element is the date context and the search interface locates all multimedia data elements that match the date context indicated by the search element.

28. The database system of claim 25 wherein the search element
10 is the place context and the search interface locates all multimedia data elements that match the place context indicated by the search element.

29. The database system of claim 25 for use with a second
database system wherein the search element is used by a search interface
15 associated with the second database system to locate all multimedia data elements within a storage device associated with the second database system that are determined to match the search element.

20 30. A context-based data storage method comprising:
deriving a time context;
capturing a plurality of image and audio data elements;
associating each of the plurality of captured data elements with a
respective time context; and
storing the plurality of data elements in association with the time
25 context wherein the plurality of data elements are stored in association with each other based on the time context.

31. The method of claim 30, further comprising retrieving selected ones of the plurality of stored data elements based on the time context.

32. The method of claim 30, further comprising storing text data wherein the plurality of data elements are stored in relation to each other based on the text data.

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33. The method of claim 30, further comprising deriving a date context wherein the plurality of data elements are stored in association with each other based on the date context.

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34. The method of claim 30, further comprising using a position determination system to derive a position context wherein the plurality of data elements are stored in association with each other based on the position context.

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35. The method of claim 30, further comprising deriving a date context and using a position determination system to derive a position context wherein the plurality of data elements are stored in association with each other based on the time, date and position contexts.

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36. The method of claim 35, further comprising retrieving selected ones of the plurality of stored data elements based on a selected one of the time, date or position contexts.

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37. The method of claim 35, further comprising retrieving selected ones of the plurality of stored data elements based on a selected two of the time, date or position contexts.

38. The method of claim 30 wherein a first of the plurality of data elements is an image.

39. The method of claim 38 wherein a second of the plurality of data element is an image.

5 40. The method of claim 38 wherein a second of the plurality of data elements is audio data.

41. The method of claim 30 wherein a first of the plurality of data elements is audio data.

10 42. The method of claim 41 wherein a second of the plurality of data elements is audio data.

43. The method of claim 42 wherein a second of the plurality of data element is an image.

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44. The method of claim 30, further comprising automatically initiating the capture of the plurality of data elements automatically without user initiation.

20 45. The method of claim 30, further comprising sensing user activation of an input device to initiate the capture of the plurality of data elements.

46. The method of claim 30 wherein at least a first of the plurality of data elements is generated by a first input device worn by an individual user.

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47. The method of claim 30 wherein at least a first of the plurality of data elements is generated by a portable imaging device, the first data element being an image.

48. The method of claim 47, further comprising detecting a horizon within the image and altering the image to position the horizon at a desired position within the altered image.

5 49. The method of claim 30, wherein the plurality of data elements are stored in a first database, the method further comprising storing additional data elements in a second database in association with each other based on the time context.

10 50. The method of claim 49, further comprising retrieving a data element stored in the second database on a user-selected time context and storing the retrieved data element in the first database.

15 51. A system for the collection and integration of life experience events, comprising:

an imaging data input device to capture an image data element;
an audio data input device to capture an audio data element;
a time circuit to provide a time and date;
a position determination system to provide position data;
20 a processor communicatively coupled to the time circuit and the position determination system to associate each of the first and second captured data elements with a respective time and date at which each of the image data and audio data elements were captured and to associate each of the first and second captured data elements with a position at which each of the image data and audio
25 data elements were captured; and

a data storage element to store the first and second data elements in association with the time, date and position of capture.

52. The system of claim 51 wherein the data storage element is a relational database and the first and second data elements are stored in the database in relation to each other.

5 53. The system of claim 51 wherein the data storage element is a relational database, the system further comprising an input device to generate text data wherein data storage element stores the first and second data elements are stored in the data storage element in relation to each other based on the text data.

10 54. The system of claim 51 wherein the position determination system comprises a global positioning system (GPS) receiver.

55. The system of claim 51, further comprising a trigger element to initiate the capture of the first and second data elements.

15 56. The system of claim 55 wherein the trigger element initiates the capture upon receipt of a trigger based on an event external to the system.

57. The system of claim 55 wherein the trigger element is
20 periodically activated.

58. The system of claim 55 wherein the imaging data input device and the audio data input device are configured in a portable device.

25 59. The system of claim 58 wherein the imaging data input device and the audio data input device are configured to be worn by an individual user.